

PATENT
ATTORNEY DOCKET NO.: 056921-5137

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of:

DAVIS et al.

Application No.: 09/869,925

Filed: July 9, 2001

FOR: COLCHINOL DERIVATIVES AS
VASCULAR DAMAGING AGENTS

)
)
)
)
) Group Art Unit: 1653
)
) Examiner: Lukton, David
)
)
)

Commissioner for Patents
U.S. Patent and Trademark Office
2011 South Clark Place
Customer Window
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Date: October 15, 2004

Sir:

INFORMATION DISCLOSURE STATEMENT

Attached is a Form PTO-1449 listing the enclosed documents.

Please charge the Rule 17(p) official fee required by Rule 97(c) to our Deposit
Account No. 50-0310 under Order No. 056291-5137.

This Information Disclosure Statement is intended to be in full compliance with the
rules, but should the Examiner find any part of its required content to have been omitted,
prompt notice to that effect is earnestly solicited, along with additional time under Rule 97(f),
to enable Applicant to fully comply.

Consideration of the foregoing and enclosures plus the return of a copy of the
herewith filed Form PTO-1449 with the Examiner's initials in the left column per MPEP 609
along with an early action on the merits of this application are earnestly solicited.

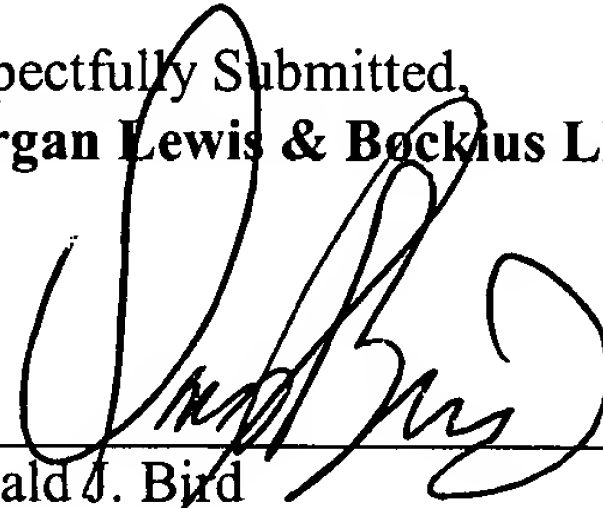
09869925
10/19/2004 SSANDARA 00000004 500310
01 FC:1806 180.00 DA

Except for issue fees payable under 37 C.F.R. §1.18, the Director is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** -in accordance with 37 C.F.R. §1.136(a)(3).

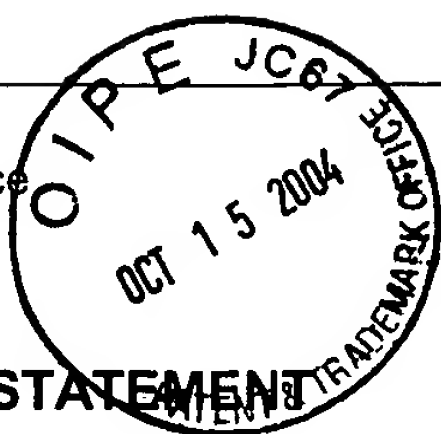
Respectfully Submitted,
Morgan Lewis & Bockius LLP

Date: October 15, 2004
Morgan Lewis & Bockius LLP
Customer No. **09629**
1111 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
Tel. No.: 202-739-3000
DJB:mk

By:



Donald J. Bird
Registration No. 25,323
Tel. No.: (202) 739-5320
Fax No.: (202) 739-3001



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Date: October 15, 2004

Page 1 of 4

Attorney Docket No.	Client Ref.
056291-5137	Z70457-1P US
Applicant: Davis et al.	
Appln. No.: 09/869,925	
Filing Date: July 9, 2001	
Examiner: Lukton, David	Group Art Unit: 1653

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
AR						
BR						
CR						

FOREIGN PATENT DOCUMENTS

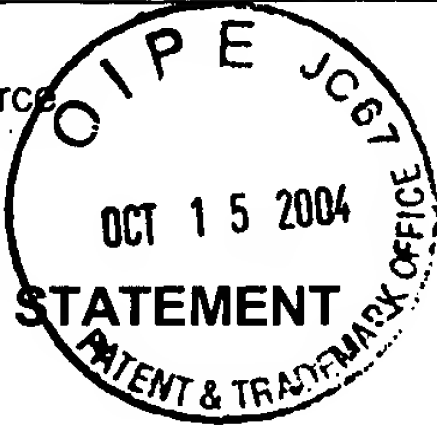
		Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
						Enclosed	No	Enclose	No
	DR	39-19634	09/1964	Japan	Nakamura			X	
	ER	39-19635	09/1964	Japan	Nakamura			X	
	FR								

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

GR	Abu Zarga et al., "New Natural Dibenzocycloheptylamine Alkaloids": A Possible Catabolic Route for the Colchicine Alkaloids", J. Nat. Prod., (1991), 54(4), 936-940				
HR	Al-Tel et al., "New Natural Colchicinoids: Indications of Two Possible Catabolic Routes for the Colchicine Alkaloids", J. Nat. Prod., (1990) 53 (3), 623-629				
IR	Banwell et al., "Total Syntheses of the Structures Assigned to Salimine and Jerusalemine, Alkaloids from <i>Colchicum decaisnei</i> Boiss. (Liliaceae)", J. Chem. Soc., Chem. Commun., (1994) (22) 2647-2649				
JR	Banwell, et al., "Synthesis and Tubulin-Binding Properties of Some AC- and ABC-Ring Analogues of Alcolcolchicine", Aust J Chem., (1992), 45, 1967-1982				
KR	Battersby et al., "Biosynthesis. Part 26 ¹ . Synthetic Studies on Structural Modification of Late Biosynthetic Precursors for Colchicine", J. Chem. Soc., Perkin Trans 1, (1983), (12), 3053-3063				
LR	Boger et al., "Thermal Reactions of Cyclopropanone Ketals. Application of . . . Total Synthesis of Colchicine", J. Am. Chem. Soc., (1986) (108 (21), 6713-6719				
MR	Boyé et al. "185. Deaminocolchinyll Methyl Ether: Synthesis from . . . Errfects of Deaminocolchinyll Methyl Ether and Dehydro Analogs", Helv. Chem. Acta, (1989), 72 (8), 1690-1696				
NR	Brecht et al., "(-)-(M,7S)-Colchicine and (-)-(M,7S)-10-Ethylthiocolchicide/Alkyne . . . Consecutive [4+2] and [3+2] Cycloadditions", Eur. Jour. Org. Chem., (1998) (11) 2451-2460				
OR	Brossi et al., "aS, 7S-absolute configuration of natural (-)-colchicine and allocongeners", FEBS Lett., (1990), 262 (1), 5-7				
PR	Orsini at al (1997) Carbohydrate Research 301, 95-109				
QR	Brown e1 al (1995) J. Chem. Soc. Perkin. Trans. 1 577-581				

Examiner Date Considered:

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 (modified) To: U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Attorney Docket No.		Client Ref.	
		056291-5137		Z70457-1P US			
		Applicant: Davis et al.					
		Appln. No.: 09/869,925					
		Filing Date: July 9, 2001					
Date: October 15, 2004		Page 2 of 4		Examiner: Lukton, David		Group Art Unit: 1653	

U.S. PATENT DOCUMENTS							
Examiner's Initials*		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
	AR						
	BR						
	CR						

FOREIGN PATENT DOCUMENTS						English Abstract		Translation Readily Available	
		Document Number	Date MM/YYYY	Country	Inventor Name				
							Enclosed	No	Enclose
	DR								
	ER								
	FR								

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)									
	GR	Deinum et al., "Synthesis and Binding to Tubulin of an Allocolchicine Spin Probe." Acta Chem. Scand, Ser B (1981) B35 (10), 677-681							
	HR	Dilger et al., "Arbeitsvorschriften und Meßwerte Procedures and Data Formaldehyd-O-oxid und Colchicine: ein eleganter Zugang zu Allocolcicinen", J. Prakt Chem./Chem-Ztg, (1998), 340 (5), 468-471 (in German)				x			x
	IR	Dokl Akad Nauk USSR, (1991) (4) 33-35					x		x
	JR	Dumortier et al., "Alternations of Rings B and C of Colchicine Are Cumulative in Overall Binding to Tubulin but Modify Each Kinetic Step", Biochemistry, (1996), 35 (49), 15900-15906							
	KR	Fernholz, "Über die Umlagerung des Colchicins mit Natriumalkoholat und die Struktur des Ringes C ¹ ", Justus Liebigs Ann. Chem., CODEN: JLACBF, 568, (1950), 63-82							
	LR	Fitzgerald, "Molecular Features of Colchicine Associated with Antimitotic Activity and Inhibition of Tubulin Polymerization", Biochemistry Pharmacology, (1976), 25, 1383-1387							
	MR	Ghera et al., "Total Synthesis of Lignan (±)-Schizandrin", J. Chem. Soc., Chem. Commun., (1978) (11), 480-481							
	NR	Hahn et al., "Synthesis and Evaluation of 2-Diazo-3,3,3-Trifluoropropanoyl . . . Photochemistry, and Tubulin Binding", Photochem. Photobiol., (1992) 55 (1), 17-27							
	OR	Han et al., "Distances between the Paclitaxel, Colchicine, and Exchangeable GTP Binding Sites on Tubulin", Biochemistry, (1998), 37 (19), 6636-6644							

Examiner	Date Considered:
----------	------------------

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 (modified)
To: U.S. Department of Commerce
Patent and Trademark Office



Attorney Docket No.

Client Ref.

056291-5137

Z70457-1P US

Applicant: Davis et al.

Appln. No.: 09/869,925

Filing Date: July 9, 2001

Examiner: Lukton, David

Group Art Unit: 1653

Date: October 15, 2004

Page 3 of 4

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
	AR					
	BR					
	CR					

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
					Enclosed	No	Enclose	No
	DR							
	ER							
	FR							

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

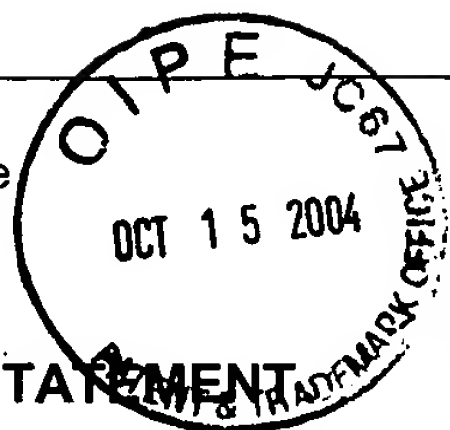
GR	Hastie, "Spectroscopic analyses of colchicinoid-tubulin complexes", Cellular Pharmacology, (1993), 1 (Suppl. 1), S17-S21				
HR	Hastie, "Spectroscopic and Kinetic Features of Allocolchicine Binding to Tubulin", Biochemistry, (1989), 28 (19), 7753-7760				
IR	Hrbek et al., "Circular Dichroism of Alkaloids of Colchicine Type And Their Derivatives", Collect. Czech. Chem. Commun., (1982), 47 (8), 2258-2279				
JR	Iorio, "Contraction of the Tropolonic Ring of Colchicine by Hydrogen Peroxide Oxidation", Heterocycles, (1984), 22 (10), 2207-2211				
KR	Izv Akad Nauk Turkm SSR, Ser Fiz-Tekh, Khim Geol Nauk, (1976), (1), 70-73		x		x
LR	Kiselev et al., "Benzenoid Rearrangement of Colchicine by the Action of Ethylene Glycol", Zh. Org. Khim., (1977), 13 (11), 2337-2342 (in Russian) (English translation attached)				
MR	Kiselev et al., "Derivatives of Aminocolchicide - VI. DICOLCHICIDYL-L-LYSINE" Obshch. Khim., (1970), 40 (4), 914-915 (in Russian, English translation attached)				
NR	Kiselev, "Derivatives of Aminocolchicide. VII", Zh. Zh. Obshch. Khim., (1971), 41 (2) 464-466 (in Russian, English translation attached)				
OR	Kita et al., "Non-phenolic oxidative coupling of phenol ether derivatives using phenyliodine (III) bis(trifluoroacetate)", Chem. Commun. (Cambridge), (1996) (12), 1481-1482				

Examiner

Date Considered:

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 (modified)
To: U.S. Department of Commerce
Patent and Trademark Office



Attorney Docket No.

Client Ref.

056291-5137

Z70457-1P US

Applicant: Davis et al.

Appln. No.: 09/869,925

Filing Date: July 9, 2001

Examiner: Lukton, David

Group Art Unit: 1653

Date: October 15, 2004

Page 4 of 4

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
	AR					
	BR					
	CR					

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
					Enclosed	No	Enclose	No
	DR							
	ER							
	FR							

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

GR	Leiter et al., "Damage Induced in Sarcoma 37 with Chemical Agents. III. Colchicine Derivatives Related to Trimethylcolchicinic Acid and to Colchinel", J. Natl. Cancer Inst., (1952), 13, 379-392				
HR	Medrano, "Roles of Colchicine Rings B and C in the Binding Process to Tubulin", Biochemistry, (1989), 28 (13), 5589-5599				
IR	Menéndez et al., "A Thermodynamic Study of the Interaction of Tubulin with Colchicine Site Ligands", J. Biol. Chem., (1989), 264, (28), 16367-16371				
JR	Olszewski et al., "Potential Photoaffinity Labels for Tubulin. Synthesis and . . . Colchicine, Combretastatin, and 3,4,5-Trimethoxybiphenyl", J. Org. Chem., (1994), 59 (15) 4285-4296				
KR	Powell et al., "Role of Ring C Substituents Related to Allocolchicine on Antitubulin Action", Med. Chem. Res., (1996), 164-173				
LR	Zh Obshch Khim., (1994) 64(5) 856-864 (in Russian)				
MR	Timbekov et al., "Mass Spectrometric Study of Alkaloids of the Homoaporphine, Homomorpine and Allocolchicine Series", "Tezisy Dokl. = Sov.-Indiiskii Simp. Khim. Pri. Soedin., 5th (1978), p. 85 (Chemical Abstracts attached)				
NR	Mackay et al., "Structures of Colchicine Analogues. I. Allocolchicine", Acta Cryst, (1989), C45, 795-799				
OR					
PR					

Examiner

Date Considered:

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.